

CLAIM AMENDMENTS

1. (original) A method of maintaining distributed time in a network having a plurality of timekeeping devices including a primary timekeeping entity, each said timekeeping device comprising a network node, the method comprising the steps of:
 - entering the time using an input mechanism on a first timekeeping device;
 - sending the time from said first timekeeping device to said primary timekeeping entity;
 - broadcasting a time update from said primary timekeeping entity to all other timekeeping entities, said broadcast repeating every T1 seconds and carrying an indication of the current time;
 - receiving said time update at a second timekeeping entity and starting a counting device upon said receipt;
 - checking the status of the counting device every T2 seconds and determining the elapsed time since said second timekeeping device received said time update.
 - comparing said elapsed time to a predetermined threshold value T3; and
 - if said elapsed time is greater than T3, making an indication that said second timekeeping device's time is unreliable.
2. (original) The method of claim 1 wherein T2 is greater than T1.
3. (original) The method of claim 1 wherein T2 is less than T1.
4. (original) The method of claim 1 wherein said first device and said second device are the same.
5. (original) The method of claim 1 wherein each of said plurality of timekeeping devices restarts said counting device upon the receipt of a time update.
6. (original) The method of claim 1 wherein said primary timekeeping device is a network switch or router.

7. (original) The method of claim 1 wherein said primary timekeeping device is a Fibre Channel switch.
8. (original) The method of claim 1 wherein said plurality of timekeeping devices are Fibre Channel switches.
9. (original) A computer readable media encoded with program instructions for causing one or more of said timekeeping devices to perform the method of claim 1.
10. (original) A network switch for maintaining distributed time in a network having a plurality of timekeeping devices, said network switch comprising:
 - an I/O mechanism for receiving a time update from an operator;
 - a first port for sending said time update across said network to a primary timekeeping entity;
 - a second port for receiving a broadcast time update from said primary timekeeping entity every T1 seconds, said time update carrying an indication of the current time;
 - a counter for timing the age of the most recently received time update, said counter restarting upon receipt of said time update;
 - a microprocessor to (i) cause a status check upon said counter every T2 seconds, (ii) cause a determination of the elapsed time since said second timekeeping device received said time update, (iii) cause a comparison between said elapsed time and a predetermined threshold value T3; and (iv) cause an indication that said network switch is unsynchronized if said elapsed time is greater than T3.
11. (currently amended) The ~~invention~~network switch of claim 10 wherein T2 is greater than T1.
12. (currently amended) The network switch ~~invention~~ of claim 10 wherein T2 is less than T1.

13. (currently amended) The network switch ~~invention~~ of claim 10 wherein said first port and said second port are the same.
14. (currently amended) The network switch ~~invention~~ of claim 10 wherein said primary timekeeping device is a network switch or router.
15. (currently amended) The network switch ~~invention~~ of claim 10 wherein said primary timekeeping device is a Fibre Channel switch.
16. (currently amended) The network switch ~~invention~~ of claim 10 wherein said network switch is a Fibre Channel switch.
17. (cancelled)
- 18-41. (cancelled)